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- A. a spa tub containing tub water defining a tub water temperature,
- B. spa piping for circulating water to and from said spa tub,
- C. a heating element for producing heated water,
- D. at least one air blower for blowing air into said spa tub,
- E. at least one water pump for pumping the heated water,
- F. a first sensor for detecting said tub water temperature,
- G. a second sensor for detecting said ambient air temperature, and
- H. a computer programmed to process signals generated by said first sensor and said second sensor, wherein said computer selectively activates and deactivates said heating element and said at least one water pump, so that the temperature of the water inside said spa tub and said spa piping is maintained above the freezing level.

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Remarks

Finality of Office Action Dated 11/30/01

Applicant hereby respectfully requests that the finality of the office action dated 11/30/01 be withdrawn under MPEP 706.07(b) and MPEP 706.07(c).

In the 11/30/01 final rejection, Examiner states:

All claims are drawn to the same invention claimed in the parent application prior to the filing of this Continued Prosecution Application under 37 CFR 1.53(d) and could have been finally rejected on the grounds and art of record in the next Office action. Accordingly, THIS ACTION IS MADE FINAL even though it is a first action after the filing under 37 CFR 1.53(d). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

MPEP 706.07(b) states:

The claims of a new application may be finally rejected in the first Office action in those situations where (A) the new application is a continuing application of, or a substitute for, an earlier application, and (B) all claims of the new application (1) are drawn to the same invention claimed in the earlier application, and (2) would have been properly finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application.

However, it would not be proper to make final a first Office action in a continuing or substitute application where that application contains material which was presented in the earlier application after final rejection or closing of prosecution but was denied entry because (A) new issues were raised that required further consideration and/or search, or (B) the issue of new matter was raised. (emphasis added)

#### Summary of Events

On 6/20/01, Applicant filed Amendment B having Claims 13 - 25 in response to the final rejection dated 4/20/01.

Applicant received advisory action dated 7/9/01 in which Examiner stated that, in addition to other reasons, "The proposed amendment(s) will not be entered because they raise new issues that would require further consideration and/or search. The new issues are: the recitation of the spa piping and the maintaining of the spa piping above the freezing level...".

On 9/20/01, Applicant filed a continuation (CPA) of the above application under 37 CFR 1.53(d) requesting to enter the unentered amendment previously filed on 6/20/01.

Applicant received a first office action final rejection dated 11/30/01 (enclosure 1), described above.

In view of the above-described events, Applicant respectfully submits that the 11/30/01 final rejection was premature in accordance with 706.07(b). In the advisory action in response to Amendment B, Examiner stated that Amendment B had "new issues that would require further consideration and/or search". As explained above, MPEP 706.07(b) states that

...it would not be proper to make final a first Office action in a continuing or substitute application where that application contains material which was presented in the earlier application after final rejection or closing of prosecution but was denied entry because (A) new issues were raised that required further consideration and/or search. . .

Nevertheless, Examiner made the 11/30/01 office action final. Applicant respectfully submits that this final rejection was improper in accordance with the second paragraph of 706.07(b). Accordingly, Applicant respectfully requests that the finality of the 11/30/01 office action be withdrawn.

#### Claim Rejections – 35 USC 112

Examiner has rejected Claims 13 – 25 under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. In response, Applicant has deleted Claims 13 – 25 and has added new Claims 26 – 38. The antecedent basis problems Examiner noted in discussing Claims 13, 17, 19, 23 and 25 have been corrected. Also, Examiner noted that in Claim 19 part E is a duplicate of part D. This has also been corrected.

#### Claim Rejections – 35 USC 103

##### Tompkins ivo Dundas

Examiner has rejected Claims 13 – 25 under 35 USC 103(a) as being unpatentable over Tomkins (5,559,720) in view of Dundas (4,189,791). Specifically, Examiner states,

Although Tompkins et al. use water temperature sensor 21 as well as other water sensors to operate the freeze control system, attention is directed to Dundas who discloses another freeze control system for a spa or pool that uses both a water temperature sensor and an ambient air temperature sensor to activate the control system in order to heat the pool using minimal energy with less waste and expense. It would have been obvious to one of ordinary skill in the spa/pool art, at the time the invention was made, to use an ambient air temperature sensor in conjunction with the water temperature sensor in the control system of Tompkins et al. in view of the teachings of Dundas in order to more effectively operate the control system using minimal energy and less waste and expense. (emphasis added).

Furthermore, Examiner states,

Both the Tompkins et al. and Dundas references relate to the common art of pools, tubs and spas all of which are containers for holding a body of water and, more specifically, to the common art of freeze control systems for contained bodies of water. Since Applicant is concerned with a freeze control system, it is considered that both Tompkins et al. and Dundas references are pertinent to the particular problem, i.e., preventing the

freezing of a body of water, with which Applicant is concerned. (emphasis added)

In Examiner's statements, Examiner refers to Dundas' "freeze control system". In contrast, all of Applicant's claims as presently amended include the limitation,

a computer programmed to process signals generated by said first sensor and said second sensor, wherein said computer selectively activates and deactivates said heating element and said at least one water pump, so that the temperature of the water inside said spa tub and said spa piping is maintained above the freezing level. (emphasis added)

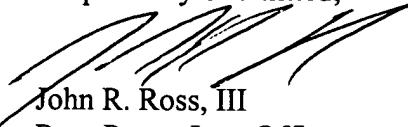
Please note, that Applicant's claims are limited much more narrowly than by a "freeze control system". As shown above, Applicant's claims include the narrow limitation "wherein said computer activates and deactivates said heating element and said at least one water pump". Dundas' device includes neither a heating element nor a water pump.

Furthermore, Applicant respectfully submits that although pools and spas each contain bodies of water, they are not common art. Usually, swimming pools are things that people enter when the ambient air temperature is very warm for the purpose of cooling down. For example, it would be very unusual for a swimmer to want to go swimming in an outdoor swimming pool during the middle of winter at a ski resort. Pools are much larger than spas and are much more expensive to heat than spas. Pools are very popular during summer on hot days. Usually, outdoor pools are drained and shut down during winter. In contrast, spas are things that people like to enter when the ambient air temperature is cold. Spas are not popular during the middle of summer on hot days. Outdoor spas are extremely popular during the middle of winter at ski resorts. Therefore, a temperature control system that is ideal for a swimming pool is unlikely to be considered by one of ordinary skill in the art when designing a freeze control system for a spa. The two control systems serve two totally different purposes. Hence, it would not have been obvious to one of ordinary skill in the art to combine Dundas with Tompkins.

## CONCLUSION

Thus, for all the reasons given above, this application, as the claims are presently limited, define a novel, patentable, and truly valuable invention. Hence allowance of this application is respectfully submitted to be proper and is respectfully solicited.

Respectfully Submitted,



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**Version with Markings to Show Changes Made**

**Changes Made to the Claims**

**Claims 13 – 25 are cancelled.**

**Claims 26 – 38 are new.**